

Claims:

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1. A thin film transistor, of the type wherein channel regions which tower through the gate insulation film in the gate electrode and source drain regions connected to said channel regions are formed against a semiconductor film being formed on the surface of an insulation substrate, wherein recombination centers which capture carriers are formed in said channel regions by part of crystal semiconductor films with a relatively low degree of crystallization among crystal semiconductor films forming said channel regions.
 2. The thin film transistor of Claim 1, wherein said recombination centers are concentrated in the vicinity of said drain regions among said channel regions.
 3. The thin film transistor of Claim 2, wherein said recombination centers are concentrated in the region, among channel regions, whose distance from the drain regions is equivalent to 1/3 to 1/10 of the channel length.
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 4. The thin film transistor according to any one of Claims 1 to Claim 3, wherein the regions, among said channel regions, in which said recombination centers are concentrated have different film thickness compared to other regions.
 5. The thin film transistor according to any one of Claims 1 to Claim 3, wherein the regions, among said channel regions, in which said recombination centers are concentrated have different surface height positions compared to other regions.
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 6. The thin film transistor of Claim 5, wherein the regions, among said channel regions, in which said recombination centers are concentrated have different surface height positions compared to other regions due to different thickness of the semiconductor films forming said channel regions.
 7. The thin film transistor of Claim 5, wherein the regions, among said channel regions, in which said recombination centers are concentrated have different surface height positions compared to other regions due to the formation of indented sections or bulged sections in the lower layer of the semiconductor films forming said channel regions.
 8. A method for manufacturing a thin film transistor, wherein channel regions which

tower through the gate insulation film in the gate electrode and source drain regions connected to said channel regions are formed against a semiconductor film being formed on the surface of an insulation substrate, wherein a section with a relatively low degree of crystallization is formed within a predetermined region of said semiconductor films by applying laser annealing for said semiconductor films after forming the semiconductor films for forming said channel regions.

9. A method for manufacturing a thin film transistor according to Claim 8, wherein a section with a relatively low degree of crystallization is formed in the predetermined regions of said semiconductor film by applying said laser annealing for said semiconductor film after forming the semiconductor films with partially different film thickness as semiconductor films for forming said channel regions.

10. A method for manufacturing a thin film transistor according to Claim 9, wherein a section with a relatively low degree of crystallization is formed in the predetermined regions of said semiconductor film by applying said laser annealing for said semiconductor film after forming the semiconductor films with different surface height positions as semiconductor films for forming said channel regions.

11. A method for manufacturing a thin film transistor according to Claim 10, wherein the thickness of said semiconductor film is made to be different partially in forming said semiconductor film with different surface height positions.

12. A method for manufacturing a thin film transistor according to Claim 11, wherein an indented section or bulging section is formed beforehand in the lower layer of said semiconductor films in forming said semiconductor films with different surface height positions.

add a2

add a4